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PATENTS
Docket No. LT-167

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Gregory P. Dittmer et al.
Application No.: 10/722,808 Confirmation No.: N/A
Filed : November 26, 2003
For : METHODS AND CIRCUITS FOR PROGRAMMABLE
CURRENT LIMIT PROTECTION PROTECTION
Group Art Unit : N/A
Examiner : N/A

Mail Stop Amendment
Hon. Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL LETTER FOR
INFORMATION DISCLOSURE STATEMENT

Sir:

Transmitted herewith is an Information Disclosure Statement in the above-identified application. This Statement is submitted:

- ☐ [] within three months of the application filing date;
- ☒ [X] more than three months from the application filing date but before the mailing date of the first Office Action on the merits.

In accordance with 37 C.F.R. § 1.97, submission of this Statement requires no fee. However, if for any reason a fee is due, the Director is hereby authorized to charge payment of any fees required in connection with this

Information Disclosure Statement to Deposit Account
No. 06-1075. A duplicate copy of this letter is
transmitted herewith.

Respectfully submitted,

AUG. 30, 2004

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Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98,
applicants hereby make the following documents of record in
the above identified application:*

U.S. Patents

3,784,893	01/08/74	Rando
4,326,245	04/20/82	Saleh
4,672,303	06/09/87	Newton
4,727,308	02/23/88	Huljak et al.
4,819,122	04/04/89	Gontowski, Jr.
4,851,953	07/25/89	O'Neill et al.
4,928,200	05/22/90	Redl et al.

* Applicants reserve the right to challenge the status
of any of the cited documents as prior art.

4,929,882	05/29/90	Szepesi
5,034,871	07/23/91	Okamoto et al.
5,055,767	10/08/91	Nelson
5,237,606	08/17/93	Ziermann
5,309,078	05/19/94	Cameron
5,396,412	03/07/95	Barlage
5,481,178	01/19/96	Wilcox et al.
5,731,694	03/24/98	Wilcox et al.
5,847,554	12/08/98	Wilcox et al.
5,994,885	11/30/99	Wilcox et al.

Foreign Patents

4-101286	09/01/92	Japan
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Other Documents

Borghi et al., "Discontinuous Conduction Mode Power Switching Regulator IC," PCI October 1988
Proceedings, pp. 31-41, 10/88

Casey, L.F., "Circuit Design For 1-10 MHZ DC-DC Conversion," Massachusetts Institute of Technology ScD. Thesis, Fig. 3-15, pp. 73-80, 1989

Cherry Semiconductor, "CS-5120 Synchronous NFET Buck Controller With V2 Architecture," Datasheet,
04/08/97

Gontowski et al., "Advanced New Integrated Circuits For Current-Mode Control," Proceedings of the Power Electronics Show and Conference, pp. 341-352, 10/86

International Rectifier, "IR Application Note AN-978, HV Floating MOS Gate Driver ICs, Full Bridge With Current Mode Control," Application Note from web page, Date Unknown

Intersil, "ISL6223 Mobile Microprocessor CORE
Voltage Regulator Multi-Phase Buck PWM Controller,"
Data Sheet, 10/01, File No. 9013

Linear Technology, "LT1432 5V High Efficiency Step-
Down Switching Regulator Controller," 1992 Linear
Databook Supplement, pp. 4-145 to 4-171.

Linear Technology, "LTC1625 NO R_{SENSE}[™] Current Mode
Synchronous Step-Down Switching Regulator,"
Datasheet, 1998

Linear Technology, "LTC1627 Monolithic Synchronous
Step-Down Switching Regulator," Datasheet, 1998

Linear Technology, "LTC1702 Dual 550 kHz Synchronous
2-Phase Switching Regulator Controller," Datasheet,
1999

Linear Technology, "LTC1703 Dual 550 kHz Synchronous
2-Phase Switching Regulator Controller with 5-Bit
VID," Datasheet, 1999

Linear Technology, "LTC1775 High Power NO R_{SENSE}[™]
Current Mode Synchronous Step-Down Switching
Regulator," Datasheet, 1999

Linear Technology, "LTC1877 High Efficiency
Monolithic Synchronous Step-Down Regulator," Initial
Release, Final Electrical Specifications, May 2000

Linear Technology, "LTC1778 Wide Operating Range,
NO R_{SENSE}[™] Step-Down Controller," Datasheet, 01/2001

Linear Technology, "LTC1873 Dual 550 kHz Synchronous
2-Phase Switching Regulator Controller With 5-Bit
VID," Datasheet, 1999

Linear Technology, "LTC1878 High Efficiency Monolithic Synchronous Step-Down Regulator," Initial Release, Final Electrical Specifications, May 2000

Linear Technology, "LTC3711 5-Bit Adjustable, Wide Operating Range, NO RSENSE™ Step-Down Controller," Initial Release Datasheet, January 2001

Linear Technology, "LTC3714 Intel Compatible, Wide Operating Range, Step-Down Controller with Internal Op Amp," Initial Release Datasheet, April 2001

Linear Technology, Nelson, C., App. Note 19, "LT-1070 Design Manual," 06/86

Linear Technology, Wilcox, M., "LT1158 Half Bridge N-Channel Power MOSFET Driver," Datasheet, 1992

Maxim Integrated Products, "MAX1710/MAX1711/MAX1712 High-Speed, Digitally Adjusted Step-Down Controllers for Notebook CPUs," Datasheet, 2000

Maxim Integrated Products, "MAX887 100% Duty Cycle, Low-Noise, Step-Down PWM DC-DC Converter," Datasheet, 09/96

Micro Linear Corporation, "ML4861 Low Voltage Boost Regulator," Preliminary Datasheet, July 1992

Redl, et al., "Overload-Protection Methods For Switching-Mode DC/DC Converters: Classification, Analysis, and Improvements," PESC '87 Record, pp. 107-118, 1987

Texas Instruments, "TPS40050, TPS40051, TBS40053 Wide-Input Synchronous Buck Controller," Datasheet, 09/03

Texas Instruments, "TPS40060, TPS40061 Wide-Input Synchronous Buck Controller," Datasheet, 02/03

Texas Instruments, "TPS5120 Dual Output, Two-Phase Synchronous Buck DC/DC Controller," Datasheet, 02/2001

Umminger, Christopher, B., "New No R_{SENSE}^{TM} Controllers Deliver Very Low Output Voltages," Linear Technology Magazine, pp. 16-20, 2/2001

Unitrode, "UCC1582, UCC2582, UCC3582 High Efficiency Synchronous, Step Down Controller," Preliminary Datasheet, 1/1997

Unitrode, "UCC29421/2, UCC39421/2 Multimode High Frequency PWM Controller," Preliminary Datasheet, 10/1999

Williams, J. and Dendinger, S., "Simplify feedback controllers with a 2-quadrant PWM IC," EDN, 05/26/83

Williams, J., "Special circuit-design techniques enhance regulator performance," EDN, 09/01/83

Pursuant to the PTO's waiver of the requirement under 37 CFR 1.98 (a)(2)(i), 1276 OG 55, applicants have not submitted copies of each cited U.S. patent and each U.S. patent application publication. Copies of the aforementioned foreign patent publications and other documents, which are listed on the accompanying Form PTO-1449, are enclosed herewith.

It is respectfully requested that these documents be (1) fully considered by the Patent and Trademark Office during the examination of this application; and (2) printed on any patent that may issue on this application. Applicants request that a copy of Form PTO-1449, as considered and initialed by the Examiner, be returned with the next communication.

An early and favorable action is respectfully
requested.

Respectfully submitted,


Aug 30, 2004

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FORM PTO 1449 	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. LT-167	SERIAL NO. 10/722,808
			APPLICANT Dittmer et al.	
	INFORMATION DISCLOSURE STATEMENT BY APPLICANT		FILING DATE November 26, 2003	GROUP To Be Assigned

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	3,784,893	01/08/74	Rando			
	4,326,245	04/20/82	Saleh			
	4,672,303	06/09/87	Newton			
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	5,994,885	11/30/99	Wilcox et al.			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	4-101286	09/01/92	Japan			X	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER INITIALS	
	Borghi et al., "Discontinuous Conduction Mode Power Switching Regulator IC," PCI October 1988 Proceedings, pp. 31-41, 10/88

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.

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	Gontowski et al., "Advanced New Integrated Circuits For Current-Mode Control," Proceedings of the Power Electronics Show and Conference, pp. 341-352, 10/86
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	Linear Technology, "LTC1627 Monolithic Synchronous Step-Down Switching Regulator," Datasheet, 1998
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	Linear Technology, "LTC1703 Dual 550 kHz Synchronous 2-Phase Switching Regulator Controller with 5-Bit VID," Datasheet, 1999
	Linear Technology, "LTC1775 High Power NO RSENSE™ Current Mode Synchronous Step-Down Switching Regulator," Datasheet, 1999
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